

REMARKS

These remarks are set forth in response to the non-final Office Action mailed March 1, 2005 (the "Office Action"). As this amendment has been timely filed within the three-month statutory period, neither an extension of time nor a fee is required. Presently, Claims 1-15 are pending in the Patent Application. In paragraph 2 of the Office Action, the Examiner has rejected Claims 1-15 as being anticipated by U.S. Patent No. 6,460,036 to Herz. In paragraph 11 of the Office Action, the Examiner has further rejected Claims 5-7 and 12-15 under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend upon a multi-dependent claim. Finally, in paragraph 12 of the Office Action, the Examiner has rejected Claim 15 under 35 USC § 101 because the claimed invention is directed to non-statutory subject matter.

In response, the Applicants have amended claims 5, 6, 7, 8, 12, 13, and 14 to remove the undesirable claim dependency in each claim. Additionally, the Applicants have amended the preamble of claim 15 to include statutory language directed to a computer program product including a computer usable medium having computer program code. Accordingly, the Applicants request the withdrawal of the Examiner's objections directed to claims 5, 6, 7, 8, 12, 13, 14 and 15. Finally, in respect to the rejections of claims 1 through 15, the Applicants respectfully traverse the rejections on the art. Prior to further addressing the suitability of Herz as an anticipatory reference, however, a brief review of the Applicants' invention is appropriate.

The Applicants have invented a publish/subscribe system which addresses the problem of the arrival of publication and subscription requests at a message broker *in differing formats*. A *subscription request generally can include a filter request* such as "a salary less than £30, 000".

If a newly received publication request is in a different format than the format of the subscription request, it will not be possible to determine whether the publication fulfills the subscription request and should thus be forwarded onto the subscriber.

More particularly, as an example, the information regarding salary amount can reside in a different field than expected depending upon the type of format used. For instance, a format type A may include the salary value in a first header, whilst a different format type B may include the salary value in a second header. Accordingly, it is not possible to perform the necessary comparison between a subscription request of one format type and a publication of another format type whilst both remain in their current, differing formats. Specifically, the invention thus maps the filter portion of subscription requests into a generic format which can be utilized in a comparison. Thus, when a publication arrives, the generic format can be mapped into the format of the newly arrived publication and a comparison can be performed to determine if the publication is appropriate for any of the subscribers.

Turning now to the rejections on the art, Herz relates to the customized electronic identification of news articles in an electronic media environment. Herz specifically teaches a system that automatically constructs both a "target profile" for each target object in the electronic media based, for example, on the frequency with which each word appears in an article relative to its overall frequency of use in all articles, as well as a "target profile interest summary" for each user, which target profile interest summary describes the user's interest level in various types of target objects. The Herz system subsequently evaluates the target profiles against the users' target profile interest summaries to generate a user-customized rank ordered listing of target objects most likely to be of interest to each user so that the user can select from among

these potentially relevant target objects, which were automatically selected by this system from the plethora of target objects that are profiled on the electronic media.

Columns 56 and 57 of Herz have been relied upon exclusively for the proposition that Herz teaches each limitation of the Applicants' independent claims 1 and 8. The limitations of claims 1 and 8 generally provide a method and system for receiving publications and forwarding said publications on to parties who have subscribed to receive such publications as follows:

- (I) receiving a subscription request of a first type, said request including a filter expression having at least one attribute;
- (II) mapping at least part of an attribute to a generic format (generic format filter attribute);
- (III) receiving a publication message of a second type;
- (IV) comparing the publication received with the subscription request to determine whether the publication is appropriate for forwarding onto the subscriber originating the request, the step of comparing comprising:
 - (A) identifying a generic format filter attribute; and
 - (B) mapping the generic format filter attribute to a format corresponding to the second message type, the method further comprising:
 - (C) transmitting said publication to the originating subscriber.

The Applicants respectfully note that the text of columns 56 and 57 do not teach limitation (I), the receipt of a subscription request of a first type which includes a filter expression having at least one attribute. Nor does column 56 and 57 teach limitation (II), the mapping of the attribute to a generic format. Columns 56 and 57 further lack a teaching directed to limitations (III) and (IV), the receipt of a publication message of a second type and the comparison of the requests to determine whether the publication is appropriate for forwarding

onto the subscriber originating the request. Of course, the detailed sub-limitations (A), (B) and (C) of limitation (IV) also are wholly lacking in Herz.

For the convenience of the Examiner, the pertinent portions of columns 56 and 57 of Herz are reproduced below:

A target profile is computed for each new article, as described earlier. The most important attribute of the target profile is a textual attribute that stands for the entire text of the article. This textual attribute is represented as described earlier, as a vector of numbers, which numbers in the preferred embodiment include the relative frequencies (TF/IDF scores) of word occurrences in this article relative to other comparable articles. The server must count the frequency of occurrence of each word in the article in order to compute the TF/IDF scores.

These news articles are then hierarchically clustered in a hierarchical cluster tree at step 503, which serves as a decision tree for determining which news articles are closest to the user's interest. The resulting clusters can be viewed as a tree in which the top of the tree includes all target objects and branches further down the tree represent divisions of the set of target objects into successively smaller subclusters of target objects. Each cluster has a cluster profile, so that at each node of the tree, the average target profile (centroid) of all target objects stored in the subtree rooted at that node is stored. This average of target profiles is computed over the representation of target profiles as vectors of numeric attributes, as described above. (emphasis added)

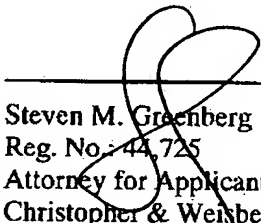
Importantly, it seems that the term "target profile" has been analogized to the "filter" of the Applicants' claimed invention. The Examiner will note, however, that according to the emphasized portion of the above-citation, the target profile of Herz is "computed" for a "new article". The target profile is not extracted from a subscription request. Accordingly, the "attribute" of the target profile cannot be equated to the attribute of the Applicants' claims 1 through 15. Of course, nowhere in columns 56 and 57 is it ever suggested that publication

requests and subscription requests are compared to determine if a publication is appropriate for forwarding onto the subscriber originating the request.

In sum, the Applicants believe that the originally filed claims 1-15 distinguish over the cited art and stand patentable and ready for an indication of allowance. As such, the Applicants respectfully request the withdrawal of the rejections under 35 U.S.C. § 102(e) based upon the foregoing remarks. This entire application is now believed to be in condition for allowance. Consequently, such action is respectfully requested. The Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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